Although the SHIFT function was used by way of example of the control of a two-valued function by means of the palm pads **90, 92**, it is clear that some other twovalued function could alternatively be controlled through the use of the palm pads.

FIG. **8** is a logic circuit diagram describing yet another novel and useful feature of the keyboard of the present invention. FIG. **8** relates to the operation of the thumb-operated keys **76** and **84** shown in FIG. **1**. It will be recalled that these keys are slidably laterally in the directions shown by the arrows in FIG. **1** and in addition, each key is depressable perpendicularly into the face **10** of the keyboard.

Corresponding to the two possible motions of each key, there are two input lines shown in FIG. **8**. Thus, when the key **76** is depressed, a logic high signal appears on the line **190**, and when the key **76** is slid to the left, a logic high signal appears on the line **192**. The mechanical structure of the key **76** prevents it from being simultaneously depressed and being slid to the left. Similarly, when the key **84** is depressed, a logic high appears on the line **194**, and when the key **84** is slid to the right, a logic high appears on the line **196**. The keys **76** and **84** can be operated independently and simultaneously.

If the left key **76** is slid to the left, and the right key **84** is not touched, the AND gate **198** will produce a logic high output that serves as a signal to command leftward motion of the writing position, since the logic low on the line **194** is converted to a logic high on the line **200** by the logical inverter **202**. On the other hand, if the left key **76** is slid to the left and simultaneously the right key **84** is depressed, the logic inverter **202** will inhibit the leftward motion command, and the AND gate **204** will produce a logic high on the line **206**, which is used as a command for the operation ERASE LEFT. That command results in the writing position sweeping to the left and erasing everything in its path.

In a symmetrical manner, if the right key **84** is slid to the right and the left key is left untouched, the AND gate **208** will produce a logic high signal on the line **210** that is fed to the writing position controller **212** to command rightward motion of the writing position. However, if the right key **84** is slid to the right and simultaneously, the left key **76** is depressed, then the AND gate **214** produces a logic high on the line **216**, which is applied to the erasing controller **218** to command the ERASE RIGHT function. This function causes the writing position to sweep in a rightward direction erasing everything in its path.

It will be appreciated that the writing position controlled by the controller **212** may be an actual physical position, as would be the case if the keyboard were used with a typewriter or printer, or alternatively, the writing position may be indicated by the position of a cursor that is displayed on a CRT. Similarly, it can be appreciated that the erasing accomplished by the erasing controller **218** may be an actual physical operation, such as would be performed by an erasing typewriter to which the keyboard might be connected, or alternatively, the erasing may be merely the alteration of data previously stored in a storage device or memory.

As pointed out above, the keyboard described herein is not merely a part of a typewriter, for example, but instead is intended to be usable with other types of equipment as well, such as (without limitation) typewriters, word processors, printers, teletype transmitters and computers.

Thus, there has been described a keyboard that has a number of novel features. The features involve the placement of the keys and the manner of operating them to control the inputting of characters into another apparatus such as a printer or a memory. All of the features of the keyboard have the purpose of making a keyboard easier to use and to learn. The keyboard is designed to take advantage of the strengths of the human hand and to circumvent its weakness.

The foregoing detailed description is illustrative of several embodiments of the invention, and it is to be understood that additional embodiments thereof will be obvious to those skilled in the art. The embodiments described herein together with those additional embodiments are considered to be within the scope of the invention.

What is claimed is:

1. A keyboard comprising:

a body;

home keys attached to said body and on which the fingers of the user normally remain;

actuating means for mode changing, attached to said body and operable while the fingers remain on said home keys, and that when actuated alter the mode of the keyboard by assigning an alternative set of characters to said home keys; and,

punctuation keys attached to said body and that produce characters that remain unchanged regardless of which mode the keyboard is in.

2. The keyboard of claim **1** wherein said punctuation keys are located distally of but immediately adjacent said home keys, whereby an individual punctuation key can be struck by a finger without the user having to remove the remaining fingers from their home keys.

3. A keyboard that eliminates the wristtwist that is common with thumb-ball supports and that eliminates the uncomfortable pressure on the wrist that is common with wrist supports, said keyboard comprising:

a body;

a palm pad attached to said body, and shaped like the proximal part of the palm of a hand, contoured to conform to the surface of the proximal part of the palm of the hand, and relieved at its proximal edge to accommodate the wrist without exerting pressure on the wrist.

4. A keyboard comprising:

a body;

a palm pad attached to said body; and,

means connecting said palm pad to said body for preloading said palm pad to support the weight of a user's forearm and hand, said palm pad depressable to an activated position by the user against the urging of said means for preloading.

5. The keyboard of claim **4** wherein said means further comprise means for adjusting the preloading force.

6. A keyboard comprising:

a body;

a set of keys mounted to said body and defining home positions for the fingers of the left and right hands;

a CURSOR LEFT key mounted to said body adjacent the left side of the left thumb when the fingers are in their home positions and actuatable by leftward movement of the left thumb for the purpose of effectuating leftward motion of a cursor;

a CURSOR UP key mounted to said body adjacent the tip of the left thumb when the fingers are in their home positions and actuatable by distal move-